

Singers: (singing).

Sarah McConnell: In 1862, the Union ship, the Monitor, and the Confederate ship, the Merrimack, battled each other for hours at the mouth of the James River. It was the first duel between ironclad warships and the beginning of a new era of naval warfare. Afterward, the Monitor became the stuff of legends and song.

Singers: (singing).

Sarah McConnell: From Virginia Humanities, I'm Sarah McConnell. This is With Good Reason. Later in the show, guerrilla warfare in the Civil War...

Singers: (singing).

Sarah McConnell: ... but, first, Americans did not initially have much faith in the Monitor. Few believed this strange, little vessel could hold her own against the formidable Confederate ironclad, the Merrimack. Jonathan White is a professor of American studies at Christopher Newport University. He's co-author along with Anna Gibson Holloway of *Our Little Monitor: The Greatest Invention of the Civil War*.

Sarah McConnell: Jonathan, the North built the ironclad ship, the Monitor, after the South had already built an ironclad. How scary was the ironclad ship the South had made?

Jonathan White: Well, the Confederate ironclad was known as the Merrimack or the CSS Virginia. She was unstoppable. She was able to fire into them and inflicted hundreds of casualties. When the Union sailors fired back at the Virginia, they were unable to penetrate her armor.

Jonathan White: I found accounts in my research of Union soldiers on the shoreline even running into the woods out of fear of this ship coming into the waterway. The battle took place on two days. On the first day, March 8th, 1862, the Confederate ship, the Merrimack or the Virginia, attacked and sank two major Union war vessels. The first ship went down. The second one saw what had happened and, after several hours of attack, surrendered rather than be sunk. Union authorities in Washington, especially Edwin Stanton, the Secretary of War, was worried that this ship would go up the Potomac River and then shell the US capital.

Sarah McConnell: When did the Union learn that the Southerners had this monster sea vessel?

Jonathan White: They actually learned very early. There were spies in the South who were reporting back to Washington, DC. In fact, one of the spies was a black woman named Mary Louvestra. She made her way to Washington, DC and met with the Secretary of the Navy, Gideon Welles, and they knew they would need to counteract it. They put an ad in *The New York Times* and other newspapers and said, "If anyone's working in ironclad vessels, please submit a design, and we'll pick the best one."

Sarah McConnell: They got a taker?

Jonathan White: They did. They had a number of designs. I think there were about 17 that were submitted. One of them came from John Ericsson, who was a Swedish inventor. The design that he came up with had most of the ship space below the waterline and, above the waterline, were just a few pieces of the vessel. One was the pilothouse where the commander would surveil the scene, and the other was a revolving turret. This turret had two guns in it, and the beauty of this turret was the ship could be aimed in any direction, and the turret could be turned, so that the cannons would be facing the enemy.

Jonathan White: This was a revolutionary design, because in the olden days of wooden war vessels, the way it would work is you would have guns maybe at the fore and aft and then on both sides. You would have to pull up next to the ship you were going to fight and fire broadside. The Monitor is able to avoid that sort of combat by having a revolving gun turret, so that she can aim from multiple directions.

Sarah McConnell: How was the timing such that here was the Merrimack scaring the Northern Navy, worried that more of the ships would be destroyed, and yet, the Monitor appears on the scene after only two days of the Merrimack destroying ships?

Jonathan White: That's right. This is one of the remarkable aspects of the Civil War that a novelist probably couldn't have come up with this. The Union finds out about the Virginia and begins plans for building their own ironclad vessel. The vessel makes her way from Brooklyn down to Hampton Roads. The Monitor shows up that night, just one day too late.

Sarah McConnell: Were the sailors inside the Monitor afraid of how she might actually perform? Some people had called it an iron coffin.

Jonathan White: That's right. The first time that a Confederate shell hit the side of the turret, you can imagine how loud it would have been. They probably looked around at one another to see if they were okay and then realized that they were going to be okay.

Jonathan White: One sailor was named William F. Keeler. He was the paymaster aboard the Monitor. He wrote to his wife, and he said, "Ours was an untried experiment, and our enemy's first fire might make it a coffin for us all." Keeler then went on to describe what it was like to be in the battle, and how he recognized that the experience of being a sailor was changing. He said to his wife, he said, "I think we get more credit for the mere fight than we deserve. Anyone could fight behind an impenetrable armor."

Jonathan White: The two ships fought one another for four or four and a half hours. Both sides claimed victory. The South claimed victory, because the Union had pulled away from the battle first. The North claimed victory, because they had protected the

USS Minnesota and kept the Virginia from attacking the capital in Washington, DC. In the grand scheme of things though, this was a victory of iron over wood. This showed that wooden navies would become obsolete in the world.

Sarah McConnell: They fought to a draw. Both sides claimed victory. But, actually, the North, in a way, won, because its ships were no longer vulnerable, right?

Jonathan White: That's right. In early May of 1862, the Union Army invaded and captured Norfolk. At that point, the Confederates knew that they could no longer protect the Virginia. They loaded her up with explosives and blew her up early in the morning one day in May of 1862.

Jonathan White: A few pieces of the Virginia still survive today. One of the fascinating aspects of her destruction is that local slaves went and recovered pieces of the Virginia that they were able to then put to their own uses in their homes and communities.

Sarah McConnell: Then, the Monitor came to an even more tragic demise.

Jonathan White: That's right. The Monitor spends the summer of 1862 in the James River and in Hampton Roads. She was sent down to North Carolina, but along the way, she encountered a gale in the Atlantic Ocean. On New Year's Eve 1862, she floundered and sunk off of Cape Hatteras in an area known as the Graveyard of the Atlantic, and 16 of her sailors went down with her that night.

Sarah McConnell: How wildly popular was the Monitor in the hearts of Northerners? Your book is titled Our Little Monitor. Why the affectionate phrase?

Jonathan White: Well, people in the North grew to love the Monitor, and they saw her as their own. During the Civil War, there was a shortage of coins. Northern shopkeepers and businessmen would make coins that were known as Civil War tokens. One of the most popular tokens was one that featured the Monitor and the slogan, "Our Little Monitor."

Sarah McConnell: Of course, the advertisers had a field day with the name.

Jonathan White: That's right. Within days of the Battle of Hampton Roads, advertisers begin using the Monitor to peddle all sorts of things, from hoop skirts to umbrellas. You might have thought that, that would stop after the sinking of the Monitor on New Year's Eve 1862, but in fact, it only continued.

Sarah McConnell: Why do you think, even today, we have such an affection for what's basically an instrument of war?

Jonathan White: I think that there's something about the ingenuity. Maybe it's the Yankee ingenuity of the Monitor that Americans, from the time and ever since, have

just really appreciated thinking about how this ship transformed naval warfare, how it helped to save the Union, how it inspired other vessels to be built like her. But, she was the first, and I think Americans have always had an affection for her as the first.

Sarah McConnell: Jonathan White, thank you for talking with me on With Good Reason.

Jonathan White: Thank you so much for having me.

Singers: (singing).

Sarah McConnell: Jonathan White is a professor of American studies at Christopher Newport University and co-author of *Our Little Monitor: The Greatest Invention of the Civil War*. He was named a 2018 Outstanding Faculty Member by the State Council of Higher Education for Virginia.

Sarah McConnell: Most people are familiar with major battles of the Civil War but less familiar with the guerrilla warfare. John Matsui is a professor of history at Virginia Military Institute. He says when it came to guerrilla fighting, the rules of warfare did not always apply.

Sarah McConnell: John, in the forthcoming book that you and your co-author, Edward Blum, have called *Notions of Evil*, you talk about how so much of the Civil War involves irregular fighters, not just the standing armies that clashed at the famous battles. I think a lot of us don't really think about those partisans, who also fought.

John Matsui: I think you're right. Warfare is characterized, not so much by big battles between thousands of soldiers, but skirmishes, bridge burnings, seemingly random murders. Oftentimes, the combatants are not wearing uniforms, and sometimes, they're actually killing their neighbors.

John Matsui: One example that comes to mind is Lawrence, Kansas. In 1856, you have a fight over whether or not Kansas is going to be a free or a slave state. You have Missourians who attack Lawrence, Kansas, because they know Lawrence is an anti-slavery stronghold.

John Matsui: William Quantrill leads several hundred pro-Confederate guerrillas, among them a young man named Jesse James, and they shoot somewhere between 150 and 200 of them, some of them in front of their families, some of them holding their infants, on the basis that all men of Lawrence are the enemy.

Sarah McConnell: Because, they're Unionists.

John Matsui: Because, they're Unionists, because they're anti-slavery.

Sarah McConnell: That sparks such rage on the part of Unionists in Kansas that you're right, they wanted to ethnically cleanse Missourians-

John Matsui: Yes.

Sarah McConnell: ... who were Southern supporters.

John Matsui: Some radical Republicans say in terms of ethnically cleansing Missouri, or at least the counties near Kansas and Missouri, "It may not be Christian, but it is human." In other words, we Kansans, we are human and, generally, Christian. Whereas they, they are no longer human.

Sarah McConnell: But, surely, this incident was an outlier. We didn't have this just flat out massacre of men and boys in many places.

John Matsui: Nothing to that scale. But, when we're talking about a few dozen, it happens all over. It happens in Virginia. It happens in Missouri. A lot of this has to do with this idea of, are guerrilla warriors legitimate combatants, or are they demons in human flesh?

Sarah McConnell: Why were there guerrilla warriors particularly in the South? Why didn't they simply join up and fight the Northerners in armies?

John Matsui: Well, to some extent, it's a matter of uncertain loyalties when the Civil War begins. Many men feel that their loyalty is to their home, to their family. But, again, the situation changes when Union soldiers arrive. Then, the war has come to them. They didn't have to march off to join some regiment in Richmond or Nashville. They become radicalized, because they don't like property damage. They don't like foreign men threatening their women, et cetera.

John Matsui: It's helped by the fact that the Confederate government says to them, "You are partisans." In other words, the Confederate government, in less than a year after the war begins, sanctions un-uniformed, armed units, whose job is not to fight Union armies in the field, but to disrupt supply lines, railroad tracks, and sow chaos in the rear of the Union armies.

Sarah McConnell: How does the North respond to that?

John Matsui: Well, the North does not respond well. It's left to individual generals, again, most of them West Point graduates, to decide what to do. Some of them just want to line them up against a wall and shoot them.

Sarah McConnell: Which is not something they did to regular soldiers?

John Matsui: Exactly. It's understood you not do that to men captured in uniform. But, men who are armed and without a uniform, a lot depends on the commander on the scene.

John Matsui: Now, one of the reasons why the Union realizes they need to codify or to create some sort of national system is the fact that, well, what happens once you start shooting armed men without uniforms? Well, those guerrillas are going to respond. They might take your uniformed soldiers and, when they capture them, shoot them up or hang them in retribution.

John Matsui: Given the mounting chaos in places like Missouri and Kansas, the Union government turns to a legal expert to try to create some sort of systematic code with how to deal with guerrillas. That man is Francis Lieber, who was born in Prussia in what is now today Germany.

John Matsui: I think it's important to mention that he has three grown sons. The eldest of them joins the Confederate Army and dies. The other two join the Union Army, and I think one of them loses an arm. As Lieber writes in a letter, "In my family, I embody this Civil War." Now, Lieber himself is a staunch Unionist.

John Matsui: In the summer of 1862, he is asked to codify, to explain, well, what is the practice of guerrilla warfare?

Sarah McConnell: This became known as the Lieber Code?

John Matsui: Exactly. The real sticking point that both Confederates and Union officials look at is Spain, because Napoleon attempted to invade and occupy Spain. The Spanish people rose up. For about five years, you have the rise of the guerrilla, the little war, against French occupation. Confederates from 1861 looked to that as an inspiration, that the people would rise up. Whereas for Union generals, this is hell on earth. This is chaos. This is anarchy. This is something that Lieber wants to avoid. We should not countenance this. This is not legitimate warfare.

John Matsui: Now, it's also interesting, in this summer of 1862 as he's beginning to draft this code, is the fact that the Union government and army is considering the use of African-American soldiers. One of the things that Lieber's Code embodies by the time it's finished in 1863 is that, even as it de-legitimizes Southern guerrillas, it emphasizes that the Union's new black regiments are legitimate combatants. That is something the Confederate government is unwilling to countenance, the use of black soldiers.

Sarah McConnell: Was the South afraid of black soldiers?

John Matsui: The South was very afraid. Not just for who and what they represented, that black men could be the equals of white men on the battlefield. Well, if they can be the equals on the battlefield, why couldn't they be the equals of white men as voters or, scarily, as marriage partners for white women?

John Matsui: Getting back to the home front, where, again, the average white Southerner experiences the war in the face of Union occupation, well, what if black soldiers now occupy your town?

Sarah McConnell: The South rebelled against the Lieber Code and said, "We can't handle you having uniformed black soldiers and counting them as legal."

John Matsui: Exactly. One of the signs of the Confederate rejection of the Lieber Code is the fact that in 1864 the prisoner exchange system breaks down. In 1862-63, there would be a one for one, one private for one private, one corporal for one corporal. But, now, with the Lieber Code in place and with thousands of African American soldiers fighting in the Union blue uniforms, that system breaks down.

John Matsui: At the same time as that prisoner exchange system breaks down, so you get prison camps like Andersonville, where thousands of soldiers, prisoners of war die, you also get an uptick in guerrilla violence, particularly the massacres of civilians, pro-Union civilians but, also, even unarmed Union soldiers, who are traveling the rails back to visit home on furlough.

Sarah McConnell: Why did you say the prisoner exchange would have broken down because of the Lieber Code? I don't understand why they wouldn't still be giving soldiers, our soldiers for your soldiers?

John Matsui: Well, part of that goes back to this idea of the use of African-American soldiers. Well, regular Confederate soldiers often don't want to take black soldiers prisoner. In their view, as I've seen in some of their letters home, they believe they were protecting their families against what they saw as an unacceptably radical race war.

Sarah McConnell: They thought they could capture white Union enemy but not black Union enemy?

John Matsui: Exactly, so, they took white prisoners, but they bayoneted and, otherwise, shot black soldiers who were attempting to surrender. Actually, there were a couple instances of white Union soldiers killing black Union soldiers because of the fear of being seen as part of their unit.

Sarah McConnell: As somebody who's so deeply immersed in studying this history, do you sometimes feel a little overwhelmed by the brutality we're capable of?

John Matsui: I certainly am. I'm sure we've all heard the phrase, "Well, that couldn't happen in 2019." Well, every now and again, when I read Civil War era letters and diaries, what do I see? "How could this possibly be happening in 1862?" There's a sense of, we're a modern nation, or we are a Christian people. That sense of outrage never goes away, and I think it's warning to us today as well.

Sarah McConnell: John Matsui is a professor of history at Virginia Military Institute. He's the author of *The First Republican Army: The Army of Virginia and the Radicalization of the Civil War*.

Sarah McConnell: Civil War monuments and re-enactments often honor popular myths, but they're not necessarily an accurate reflection of history. My next guest is Stephen Rockenbach, a professor of history and philosophy at Virginia State University. He says, "Take, for example, Confederate raider, John Hunt Morgan, who killed Unionist farmers in Indiana. He is celebrated there today as a dashing cavalryman."

Stephen R.: The example that I have studied has to do with Confederate General John Hunt Morgan's raid into Kentucky, Indiana, and Ohio in July of 1863. It's interesting, because there really wasn't a North or a South the way that we think of it at that time. You had Unionists on both sides of the Ohio River. You had those who were sympathetic to the Confederacy on both sides. And, you had a number of people that simply were trying to largely stay out of the conflict.

Stephen R.: This raid was going to make those who had chosen the Union feel the cost of doing that. Eight Harrison Countians died as a result of the raid, and a number were injured. But, also, an extreme economic impact as the things that people needed to make their lives, cash and valuables and family heirlooms, were taken in Harrison County, as well as across Indiana and Ohio in the path of the raid.

Sarah McConnell: You, in the 1990s, witnessed a happy commemoration of those events. What were they re-enacting?

Stephen R.: These were Civil War re-enactments, which are very popular where battles happened. In Indiana and Ohio, where you had Morgan's Raid, it's often common to re-enact the raid. These sorts of things, they kind of flipped the narrative, in my mind, where Morgan was now the hero of the piece. The Union troops, who were actually trying to protect locals, were now the ones that were coming at the end and taking all of the goods.

Stephen R.: There was a spectator, who had a small son, who he lifted up as the re-enactor portraying John Hunt Morgan came by and said, "Look, son, I want you to see a real American hero." Which, again, I thought was interesting considering that, truthfully, John Hunt Morgan was fighting for the Confederacy. But, more importantly, that that fellow's ancestors may have been some that felt that pain, fear, and that uncertainty of having enemy troops on their soil.

Stephen R.: I think that what goes on is as we get further away from a historical event, and, particularly with the Civil War, there's a period that historians, including David Blight, have described as reconciliation. Where some of the pain, the complexity, certainly, the stressfulness of war is replaced by the excitement of it or the romance, or what can we find on both sides that we can appreciate?

Sarah McConnell: Why do you think that collective memory started to identify more with Southerners and not with Northerners, or even with Southerners and Northerners? It became almost exclusively the exploits of the Southerners.

Stephen R.: Yes, particularly, during what we call the Lost Cause Movement. That is a concerted effort to emphasize the Confederates' heroics and the sacrifice of soldiers, leaving out things like the institution of slavery, the causes of the war, guerrilla violence, suffering of civilians.

Sarah McConnell: You mention Blight in your writing, and how he said this, "The white supremacists joined arms with the reconciliationists, and they ended up creating for the nation a segregated memory of the Civil War on Southern terms." How did that happen? Was that deliberate, or was it something that happens when people try to forget a brutal war?

Stephen R.: It's both. It's deliberate on some terms, and I think there's also maybe a masked idea that, I'll feel better if I think about this.

Sarah McConnell: Do you see any lessons for us that cast light on the controversy we're experiencing now over monuments that memorialize the Civil War?

Stephen R.: Yes. I think that the most important lesson is that we need to go into past and understand the context of how things happen, and when things happen. Part of, I think, the challenge is to not make our own judgments and assumptions on what we would like to believe about our past. But, instead, listen to those historical actors, and how they experienced it, and I think that we will get a much more complex, perhaps, messier version of the past, but one that will challenge us to think about it and commemorate it in a different way.

Stephen R.: Especially with monuments, you have to look at why they're there: who put them there, what do people think of them now, what is their purpose now. It probably is important that we learn more about them. The people that put them up. The people who opposed them going up.

Sarah McConnell: Were there people who opposed them going up?

Stephen R.: There definitely were. In the case of Richmond, for example, you had black city council members who opposed the Robert E. Lee statue on Monument Avenue going up. You also had John Mitchell, who was an African-American newspaper editor, that wrote extensively about his objection, basically pointing out that this memory of the war was one that was of the Confederacy, the losing side, and particularly, that it was put up largely by white Virginians to commemorate Lee.

Stephen R.: I believe that one of the things that he said, to paraphrase, is that black men put up the monument, and black men will take it down. That was because, largely, African-American labor was used to put the monument into place. He tells us

that there were a lot of people involved in this story, a lot of witnesses to the event, and that being able to understand largely their perspectives will lead us a little further into understanding, not only our past, but maybe ourselves.

Sarah McConnell: Do you think the Civil War is still unresolved for us?

Stephen R.: Yes. I do. As long as we can't agree on what it meant. The one thing that struck me the most when I started researching the Ohio River Valley and looking at communities, and how people saw themselves, between the experiences of those in a free state and in the slave state of Kentucky. The difference was the institution of slavery, but not the mindset.

Stephen R.: During the war, white supremacy was a common theme between Hoosiers and Kentuckians. They looked at Kentucky and Indiana as both civilizing the area and coming in and pushing out Native Americans. This they did together.

Stephen R.: There were a number of cases during the Civil War, where when there was a concern that these communities might be split, they're reminded in newspapers by editors that say, "We came together at Tippecanoe against Tecumseh and the Prophet in 1811. We can come again here. We helped one another."

Stephen R.: Communities north and south of the river had worked together, in their mind, to push out Native Americans, and that there was a common heritage there between these states. People that had come from the same parts of Virginia and Kentucky to establish largely, in their mind, this region that was for white settlers.

Stephen R.: At the beginning of the Civil War, a lot of times, editors were reminding Ohio Valley residents of this saying, "We all civilized this area and settled it for white people, and we'll continue to." They didn't see slavery as something that would keep them apart, largely, because they all agreed on white supremacy.

Sarah McConnell: Stephen Rockenbach, thank you so much for sharing your insight with me on With Good Reason.

Stephen R.: Thank you. It was my pleasure.

Sarah McConnell: Stephen Rockenbach is a professor of history and philosophy at Virginia State University. This is With Good Reason. We'll be right back.

Sarah McConnell: Welcome back to With Good Reason from Virginia Humanities.

Sarah McConnell: When the Virginia Sesquicentennial of the American Civil War Commission held a conference at Virginia Tech, one of the speakers was John Bowen. Bowen is a veterinarian and equine specialist. He says millions of horses were used by both sides, and twice as many horses died as men.

John Bowen: I want to talk to you a little bit about the horses of the Civil War. They were the animals that really had no choice in the matter. They were taken along, whether they needed to or not. Many of you may also be surprised that the very first casualty of the Civil War was, in fact, a Confederate horse at Fort Sumter.

John Bowen: As far as the Southerners were concerned, they tended to come with their own horses. It was a more agrarian society. They were used to handling horses. They had horses with them, and they were expected to bring horses to the conflict.

John Bowen: There were plenty of horses available in the United States, interestingly enough. An enormous number were available here because of the great increase in the Industrial Revolution and, also, because of the agrarian South. There was not a shortage of supply of horse flesh. It's just a matter of being able to buy them and get them trained and get them into a useful position.

John Bowen: Now, as far as procurement's concerned, they paid about \$150 or a little bit more under different circumstances. You will, in fact, see that they pay more money when they get them in Washington, DC, because they're close at hand, and they don't have to transport them, than if they go up into Vermont to pick up their horses.

John Bowen: Replacements were always being requested. Costs for these replacements soared, of course, as the demand continued to flow to the quartermaster general's office. Abraham Lincoln, one of the things that he did say is, "I can make more generals, but horses cost money."

John Bowen: It's been estimated, in fact, 3.5 million horses and mules were incorporated into this particular conflict. Although we know that about 1.4 million horses actually died, we're not absolutely sure how many others passed on and were not very useful as a consequence of this.

John Bowen: The Union armies alone procured and used some 835,000 horses and spent some \$124 million on horses and on horse feed and on horse facilities. 72,243 horses were actually in action during the Gettysburg Battle for both sides. That left the population of Gettysburg the problem of having to deal with between 3 and 5,000 dead horses when everybody left. I can imagine the flies and the smell were quite disgusting.

John Bowen: In fact, trying to aim at the horses was a deliberate tactic on both sides. Because, if you can kill the horses that are drawing these guns, you virtually destroyed the ability of that army to move the guns again to another position.

John Bowen: Now, the other thing that was, of course, a problem is the fact that animal nutrition comes into this. Hay, of course, is required for roughage. Oats are required for energy. A horse ration of hay would be about 12 pounds of hay a day and for a meal about nine pounds of hay a day. Then, you get to the point where they would give them about three pounds of grain.

John Bowen: This sounds very fine and dandy, until you realize that the hay had to be transported to wherever the horses were in action. That all the hay was packed loose. It wasn't brought in those nice, neat bales that we're all so used to today. It wouldn't be very easy to move all of this stuff around. As a consequence, many animals suffered from starvation, because they never succeeded in getting the full ration they were due.

John Bowen: The McClellan saddle, which was, of course, used by both sides, it's a pretty rotten saddle as saddles go quite frankly. It caused a great deal of saddle sores. It caused abrasions. When a horse becomes saddle sore, it may even become as bad as having a condition called fistulous withers, where you have a suppurating abscess on the back of the horse that never seems to heal.

John Bowen: All horses had to be shod with iron shoes, and these were put on at the remount depot, that was capable of holding 30,000 horses at one time. It had sufficient farriers to be able to shoe 500 horses in a day. That's 2,000 shoes to be put onto the horses in a day, quite a considerable amount of work.

John Bowen: Probably, the biggest thing of all was lack of water, because horses on the move would not be allowed to stop to be able to drink water. They wouldn't get hay, because there wasn't time to feed them on the way, or the hay supply couldn't reach them in time. Very often, they would be given grain, because it could be brought to them. Unfortunately, when you do this to an equine, it usually tends to give it stomach ache, which is very often fatal, as far as horses are concerned.

John Bowen: Wound management was pretty primitive. All they had were things like Stockholm Tar, which is a rather nasty petroleum mixture with black tar involved in it, iodine, sodium hypochlorite, and, on occasions, they would use honey. In fact, when they wanted to suture wounds, the Southern Army, the Confederate Army had more success suturing horses, because they were using horse hair, which is a monofilament substance and doesn't wick any fluid into it and wick any infections back into the wound. Whereas the Northern Army were using cotton, which being a braided item, would, of course, wick things and cause more trouble than otherwise. Saber wounds, of course, were a problem.

John Bowen: If a horse became lame, it meant it wasn't very useful. It couldn't keep up with the march, and many commanders would have them shot. Sheridan is reported to have killed off somewhere in the region of 500 horses, because they couldn't keep up with his march. Rather than let them fall into the hands of the enemy and become rehabilitated by the enemy, he would shoot them instead. It seems rather drastic, but you have to understand that the horse in those days was rather like having a motorcycle or a car or some sort of transport. That's all there was to it.

John Bowen: The fact that the useful life of a horse in those days was around two years. It was only a very few officers that had a great deal of concern for their animals. In fact, it is the aftermath of the Civil War and the aftermath of later wars, that

really developed the animal welfare ideas and developments that we've had since then, where people take considerably better care of their animals.

John Bowen: But, what I should warn you against is, don't judge these people by our standards today. In a lot of cases, they didn't know any better. They didn't know about infections. They didn't understand that diseases could be spread by contagion. They did what they could under the circumstances, and I think we should be grateful to the horses, who really gave of their lives without qualm at all. With that, I hope you enjoyed what we had to say. Thank you.

Singers: (singing).

Sarah McConnell: John Bowen is a veterinarian and an equine specialist.

Singers: (singing).

Sarah McConnell: Also speaking at the American Civil War Commission Conference at Virginia Tech was William Davis. Davis is a Virginia Tech professor of history and director of programs at the Virginia Center for Civil War Studies.

William Davis: It was Charles Dudley Warner, not Mark Twain, who declared that while everyone talks about the weather, nobody does anything about it. Certainly, there were many in the Civil War who wished someone would do something about it. Wars are fought outdoors in the elements. For all that commanders marshal, men and materiel, to shape the odds in their favor, one variable no one masters is the weather, war's inevitable third combatant.

William Davis: The soldiers wrote about it in their letters and diaries more than on any other subject excepting, perhaps, their health. Armies could only practically move and fight from April through early December. After that, they went into fixed winter quarters to await spring.

William Davis: But, a sudden unexpected cold snap could be brutal, as when General U.S. Grant moved his victorious army from Fort Henry over land to invest Fort Donelson in February 1862. It had been unseasonably warm, and on the march, many of his men simply abandoned their blankets, only to be hit by a sudden, killer freeze that covered them in several inches of snow.

William Davis: At the opposite extreme, oppressive heat magnified the discomfort of the wounded. It impaired their ability to fight off disease and infection, especially with the flies and the vermin that thrived in the sun. At its worst, the sun dried out brush and woods, so that sparks from rifles could set brush fires that became raging blazes, as at the Wilderness in May 1864, when spreading fires trapped and burnt to death many Union wounded, who were unable to get to safety.

William Davis: Spring rains and summer storms turned turnpikes into seas of mud and made even small streams impassable. A storm on the Pacific Coast came down and dumped so much rain on the Pacific and kept moving east dumping rain. The waters of the Tennessee River were high enough that they were almost flowing into Fort Henry. In fact, Fort Henry was taken, not by land forces, but by naval forces, some of whom almost virtually just steamed over the ramparts into the fort.

William Davis: At the Battle of New Market, Virginia on May 15th, 1864, all-day rains so soaked a spot in the center of the action that mud sucked the shoes off of the feet of advancing soldiers, in what is still today known as the Field of Lost Shoes. Yet, rain could be a friend, as at Chancellorsville, where recent downpours meant that Stonewall Jackson's division stirred up virtually no dust to give away their movement, as they made that great flanking march that led to crushing victory.

William Davis: Occasionally, a conjunction of temperature, wind, and humidity created the mysterious phenomenon known as acoustic shadow. If the weather was right, the sounds of battle heard miles from the guns might not be heard a mere few hundred yards away from the fight. It happened several times during the war, particularly at Gettysburg, Seven Pines, Fort Donelson, Five Forks, and Chancellorsville. At Gettysburg, reinforcements just 10 miles away could not hear the greatest land battle of the war, but people in Pittsburgh, Pennsylvania heard it almost 200 miles away.

William Davis: Nothing matches the terror of a tornado. The night the Georgia Infantry had just arrived at Richmond in June 1861, when a funnel cloud hit them before dawn and destroyed their camps stampeding the regiment to the shelter of nearby stables.

William Davis: This won't be any surprise to us now, I suppose, but meteorologists will tell you that North America suffers the most extreme weather, the most violent weather on the planet, because of our position between two oceans and above the warm gulf. It was hard enough for men in uniform to face shot and shell, but how much harder it was that they constantly had to contend with the discomforts and the capricious terrors of the weather as well.

William Davis: There was nothing they could do about it except to try to emulate one serene Yankee soldier who huddled in his tent in the midst of a deluge and wrote home that, "Trusting to deep driven stakes and good stout ropes, we rest in peace and quiet and contentment, leaving the elements to war at pleasure, as they will."

William Davis: Thank you.

Sarah McConnell: William Davis is a professor of history at Virginia Tech.

Sarah McConnell: A lot has been written about the fighting on the water that took place between the navies of the North and the South. But, what about the drinking water the

soldiers needed to keep from being parched and dehydrated? James Robertson, Jr. is a noted scholar on the Civil War. An Alumni Distinguished Professor Emeritus at Virginia Tech, he says the quality of water during the Civil War could be just as life-threatening as the enemy, and many battles could be won or lost over a lack of water.

James R.: If there is anything in this life we take for granted, it is water. A Chinese philosopher stated five centuries before Christ, "Water is good. It benefits all things and does not compete with anything."

James R.: Mention water in American history, and the natural inclination is to think of rivers. Their bountifulness is our blessing. Waterways were highly important in Civil War military thinking, but this is really a secondary statement. Of primary importance is the simple fact that the quality and the quantity of water were and remain essential to human needs. Napoleon put it succinctly, "The greatest necessity of a soldier is water."

James R.: Hidden in the vast collections of the Library of Congress is this obscure 1864 photograph. It shows a group of Union soldiers frolicking in Virginia's North Anna River. What the seemingly innocent image does not show is the content of the river. Two opposing armies were encamped near that stream. Thousands of men and horses were using the North Anna for drinking water. Countless others were using it as a latrine. The placid, innocent water you see was, in fact, fouled with scores of impurities, many of them life-threatening.

James R.: Following the 1862 Battle of Shiloh, some 20,000 sick and wounded Confederate soldiers were piled together in the little town of Corinth, Mississippi. Food and medical supplies were lacking, and the available water, a newspaper reporter stated, "... smells so offensively that the men have to hold their noses while drinking it."

James R.: The tendency of soldiers to drink anything wet had lethal repercussions. Most of the shocking sickness and death in Civil War prisons is directly attributable to the available water. Captain Robert Park of the 12th Alabama noted this of the bathing routine at Fort Delaware Prison in the North, "The water is brackish and covered with green scum. Men stand in rows along the banks, and all wash at one time. The dirty, off-scouring from each man flows to his neighbor, and is used again. The whole scene is sickening."

James R.: Water streams always course through the low lands. Soldiers generally establish camps on battle positions on high ground. [inaudible 00:43:51] rain washed the waste of the encampments down into the streams, polluting the water supply. Contaminated water is a breeding ground for a deadly bacterium called Salmonella Typhi. Civil War soldiers knew it as camp fever, swamp fever, backbone fever. You know the disease as typhoid fever. It was the third largest killer in the Civil War behind diarrhea and bullets. One of every four men who perished from disease in the Civil War died of typhoid fever.

James R.: The early symptoms are headaches, diarrhea, high fever, skin lesions, body pain. Within two weeks, temperature rises to the dangerous level, and the patient becomes prostrate, emaciated, and wildly delirious. Civil War physicians knew no cure, because they were not sure of the cause. They treated the symptoms rather than the cause, that is, they used cold compresses for fever and opiates for delirium.

James R.: Writing from Louisiana on the autumn of 1863, Captain John De Forest of the 12th Connecticut asserted that, "Swamp fever has turned our fine regiment into a sickly, dispirited, undisciplined wreck, 42 deaths in 42 days, barely 225 men left for duty, and most of them staggering skeletons covered with fever sores. If they were at home, they would be in bed asking for the prayers of the congregation."

James R.: Those who survived typhoid fever had immunity from another attack, but 35% of soldiers afflicted with the disease died horribly from it. Among the wartime fatalities from typhoid fever were Senator Stephen A. Douglas, Lincoln's son, Willie, and General John Buford, whose promising career was cut short, five months after Gettysburg.

James R.: Interestingly, what saved the most soldiers from the ravages of typhoid fever was, unbelievably, their passion for coffee. To make coffee, as we know, necessitates boiling water. Yet, Johnny Rebs and Billy Yanks were unaware of the sanitizing effects involved in preparing their daily coffee.

James R.: The quality of water aside, the need for water was constant in Civil War times, supply, too often, was not. Benjamin Franklin once observed, "When the well is dry, we know the worth of water," and Franklin was correct. Scarcity of water characterized most marches. After an all-day tramp under a blazing sun, a Connecticut soldier wrote, "I never was so thirsty in my life, and I hope I never shall be again."

James R.: In October 1862, the Confederate invasion of Kentucky came to a halt at the Battle of Perryville. The place was not a rail junction, nor did several roads converge there. The opposing armies collided there to fight for control of a water spring amid the parched Kentucky countryside.

James R.: Carlton McCarthy of the Richmond Howitzers described in his memoirs, *An Army on the March*, a soldier might holler that a well was just down the road. "Then," said McCarthy, "the man would start off in a trot to reach it before the column. Of course, another followed and another, till a stream of men were hurrying to the well, which was soon completely surrounded by a thirsty mob, yelling and pushing and pulling to get to the bucket... "

James R.: Look at the Battle of Gettysburg from a perspective I doubt if any of you have ever considered. For four days in the heat of July 1863, some 170,000 soldiers grappled in combat. Where did that incredible mass of humanity get water?

- James R.: Only three small streams flowed through the area. The poor conduct of many soldiers in that conflict, I would humbly suggest, can be attributed to thirst, if not dehydration. Much is made of the gallantry of Colonel Lawrence Chamberlain's 20th Maine at Little Round Top. In fairness, however, it should be pointed out that leading the attack against Chamberlain were Alabama soldiers under Colonel William Oates. Some of his men had fainted from heat and thirst while getting in position to make the assault. "Those who charged forward," Oates stated, shouted, "Water! Water!"
- James R.: Army regulation stipulated that every soldier was to receive one gallon of water per day. Lucky, indeed, was the man who got a quart of water a day. Horses were to be given four gallons of water daily. When water was scarce, one does not have to ponder whether man or beast got the water that was there.
- James R.: Scarcity of water too often caused thirst to overcome common sense. A Massachusetts soldier marching through Virginia in June 1863 observed, "We forded Bull Run, and the water was about the color of milk and molasses, warm and nauseous. After that, there was nothing but slimy mud holes to drink out of, and the suffering increased. At every semblance of a spring, crowds and men swarmed into the warm, disgusting pools and puddles and drank the filthy liquid to quench their thirst."
- James R.: Today, water comes to our attention, only when there is too much or as a scenic beauty. We bend over our water cooler and suck away, with never a hesitation about the water's purity or our need. But, there was a time, 150 years ago, when water was a blessing, second only to life itself.
- Sarah McConnell: That is one of the most distinguished names in Civil War history, James Robertson, Jr. Robertson has authored many books. His biography of Stonewall Jackson won eight national awards and was used as the basis for the movie, *Gods and Generals*.
- Sarah McConnell: Major support for *With Good Reason* is provided by the law firm of McGuireWoods and by the University of Virginia Health System, using advanced cardiac imaging to better diagnose conditions, before they become serious health issues, uvahealth.com.
- Sarah McConnell: *With Good Reason* is produced in Charlottesville by Virginia Humanities. Our production team is Allison Quantz, Elliot Majerczyk, Kelley Libby, and Cass Adair. Jeannie Palin handles Listener Services. We had help this week from Ray Lenz and Deb Farmer at WHRV. For the podcast, go to withgoodreasonradio.org.
- Sarah McConnell: I'm Sarah McConnell, thanks for listening.